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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/541,765	04/03/2000	Mareike Klee	PHD 99.046	4722
24737	7590	12/29/2003	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			THOMAS, ERIC W	
P.O. BOX 3001			ART UNIT	
BRIARCLIFF MANOR, NY 10510			PAPER NUMBER	

2831

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/541,785

Applicant(s)

KLEE ET AL.

Examiner

Eric W Thomas

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**Introduction:**

The examiner acknowledges, as recommended in M.P.E.P. 707.04, the applicant's submission of the amendment dated 9/15/03. At this point, claims 1, 9-11 have been amended. Claim 2 has been cancelled. Thus, claims 1, 3-12 are pending in the instant application.

**DETAILED ACTION**

***Claim Objections***

1. Claims 10, and 11 are objected to because of the following informalities:

Claim 10, line 5 delete the second occurrence of "about".

Claim 10, line 6, the limitation, "of the at least one second electrode" is confusing.

The examiner interpreted this limitation as: "of the at least one first electrode oppose to the first surface and at least one second electrode"

Claim 11, line 6, insert ~~least~~ before "one".

Claim 11, line 7, delete the first occurrence of "a"

Claim 12, line 3, insert --,-- after "substrate"

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

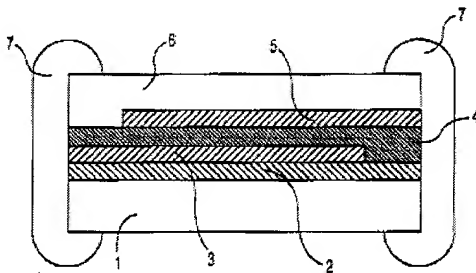
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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2. Claims 1, 3-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Klee et al. (EP 0 823 718).



Klee et al. disclose in fig. 1, a ceramic passive component which comprises a carrier substrate (1), at least one first electrode (3) formed from a metal material (Ti/Pt), at least one thin film dielectric (5) of a thickness in the range of about 0.25-0.75 micrometers having a first surface disposed, on a second surface of the at least one first electrode opposing said first surface of the at least one first electrode, and at least one second electrode (6) disposed on a second surface of the at least one dielectric opposing said first surface of the at least one dielectric, wherein the at least one thin film dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant  $\epsilon_r$  (inherent feature of the ferroelectric material – see below – BST – see example 1) and the ferroelectric ceramic material is  $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$  (BST) wherein  $0 \leq x \leq 1$ .

Regarding claim 3, Klee et al. disclose the at least one first electrode comprises a first (Ti) and a second electrically conductive layer (see col. 5 lines 20-30).

Regarding claim 4, Klee et al. disclose the first electrically conductive layer of the at least one first electrode comprises Ti (see col. 5 lines 20-30).

Regarding claim 5, Klee et al. disclose the second electrically conducting layer is formed from a metal material.

Regarding claim 6, Klee et al. disclose the carrier substrate (1) is formed from a glass material (see example 1).

Regarding claim 7, Klee et al. disclose the dielectric layer comprises multiple layers (see col. 4 lines 20-55).

Regarding claim 8, Klee et al. disclose the passive component further comprises a protective layer (6) laid over the entire component.

Regarding claim 9, Klee et al. disclose a capacitive component comprising a ceramic passive component comprising a carrier substrate (1), at least one first electrode (2) formed of a metal material (see example 1), and having a first surface disposed on the substrate, at least one thin film dielectric (5) of a thickness in the range of about 0.25 to .075 micrometers having a first surface disposed, on a second surface, opposed to said first surface of the at least first electrode, and at least a second electrode (6) disposed on a second surface of the at least one thin film dielectric, opposed to said first surface of the at least one dielectric, wherein the at least one thin film dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant  $\epsilon_r$  (an inherent feature of the disclosed materials – see example 1). Regarding the limitation, “A voltage-controlled-oscillator” is an intended use of the capacitive component; it has been held that a recitation with respect to the

manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham 2 USPQ2d 1647 (1987).

Regarding claim 10, Klee et al. disclose a capacitive component comprising a ceramic passive component comprising a carrier substrate (1), at least one first electrode (2) formed of a metal material (see example 1), and having a first surface disposed on the substrate, at least one thin film dielectric (5) having a thickness in the range of about 0.25-0.75 micrometers having a first surface disposed on a second surface of the at least one first electrode, opposed to said first surface of the at least one first electrode, and at least a second electrode (6) disposed on a second surface of the at least one thin film dielectric, opposed to said first surface of the at least one dielectric, wherein the at least one thin film dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant  $\epsilon_r$  (an inherent feature of the disclosed materials – see example 1). Regarding the limitation, “A filter” is an intended use of the capacitive component; it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham 2 USPQ2d 1647 (1987).

Regarding claim 11, Klee et al. disclose a capacitive component comprising a ceramic passive component comprising a carrier substrate (1), at least one first electrode (2) formed of a metal material (see example 1), and having a first surface disposed on the substrate, at least one thin film dielectric (5) of a thickness in the range

of about 0.25 to .075 micrometers having a first surface disposed, on a second surface opposed to said first surface, and at least a second electrode (6) disposed on a second surface of the at least one thin film dielectric, wherein the at least one thin film dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant  $\epsilon_r$  (an inherent feature of the disclosed materials – see example 1).

Regarding the limitation, "A delay line" is an intended use of the capacitive component; it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham 2 USPQ2d 1647 (1987).

Regarding claim 12, Klee et al. disclose a capacitive ceramic comprising a carrier substrate (1) at least one first electrode (3) formed from a metal material, and having a first surface disposed on the substrate, at least one dielectric (5) having a thickness in the range of about 0.25-0.75 micrometers with a voltage-dependent film relative dielectric  $\epsilon_r$  (inherent feature of the ferroelectric material –BST & see the material of example 1) having a second surface opposed to the first surface disposed on a second surface of the at least one first electrode opposed to said first surface and at least one second electrode (6) disposed on the second surface of the at least one thin film dielectric as a capacitive component.

### ***Response to Arguments***

3. Applicant's arguments, see pages 7-8, filed 9/15/03, with respect to the rejection(s) of claim(s) 12 under Malone et al. in view of Perino et al. have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Klee et al.

**SUGGESTION MADE BY THE EXAMINER:**

Applicant should consider an amendment such as "wherein the at least one first electrode having a first surface is disposed directly on the substrate" within the independent claims to overcome the rejection of the instant action.

***Conclusion***

In order to ensure full consideration of any amendments, affidavits, or declaration, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116 which will be strictly enforced.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric W Thomas whose telephone number is (703) 305-0878. The examiner can normally be reached on Mon & Sat 9:00AM - 9:30PM; Tues-Fri 5:30PM-10:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 703-308-3682. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ewt

A handwritten signature in black ink, consisting of stylized, cursive letters that appear to be 'C', 'H', and 'L' followed by a long horizontal stroke.